SEQUENCE LISTING

<110> Klein, Elliott S.
Chandraratna Roshantha A.

<120> Methods of Detecting Dissociated Nuclear Hormone Receptor Ligands

<130> P-AR 4528

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<170> FastSEQ for Windows Version 4.0

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<212> PRT
<213> Homo sapiens

<400> 1

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Met Ala Ser Asn Ser Ser Ser Cys Pro Thr Pro Gly Gly Gly His Leu
 1               5                  10                  15
Asn Gly Tyr Pro Val Pro Pro Tyr Ala Phe Phe Phe Pro Pro Met Leu
            20                  25                  30
Gly Gly Leu Ser Pro Pro Gly Ala Leu Thr Thr Leu Gln His Gln Leu
        35                  40                  45
Pro Val Ser Gly Tyr Ser Thr Pro Ser Pro Ala Thr Ile Glu Thr Gln
    50                  55                  60
Ser Ser Ser Ser Glu Glu Ile Val Pro Ser Pro Pro Ser Pro Pro Pro
65                  70                  75                  80
Leu Pro Arg Ile Tyr Lys Pro Cys Phe Val Cys Gln Asp Lys Ser Ser
                85                  90                  95
Gly Tyr His Tyr Gly Val Ser Ala Cys Glu Gly Cys Lys Gly Phe Phe
            100                 105                 110
Arg Arg Ser Ile Gln Lys Asn Met Val Tyr Thr Cys His Arg Asp Lys
        115                 120                 125
Asn Cys Ile Ile Asn Lys Val Thr Arg Asn Arg Cys Gln Tyr Cys Arg
    130                 135                 140
Leu Gln Lys Cys Phe Glu Val Gly Met Ser Lys Glu Ser Val Arg Asn
145                 150                 155                 160
Asp Arg Asn Lys Lys Lys Lys Glu Val Pro Lys Pro Glu Cys Ser Glu
                165                 170                 175
Ser Tyr Thr Leu Thr Pro Glu Val Gly Glu Leu Ile Glu Lys Val Arg
            180                 185                 190
Lys Ala His Gln Glu Thr Phe Pro Ala Leu Cys Gln Leu Gly Lys Tyr
        195                 200                 205
Thr Thr Asn Asn Ser Ser Glu Gln Arg Val Ser Leu Asp Ile Asp Leu
    210                 215                 220
Trp Asp Lys Phe Ser Glu Leu Ser Thr Lys Cys Ile Ile Lys Thr Val
225                 230                 235                 240
Asp Phe Ala Lys Gln Leu Pro Gly Phe Thr Thr Leu Thr Ile Ala Asp
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                245                 250                 255
Gln Ile Thr Leu Leu Lys Ala Ala Cys Leu Asp Ile Leu Ile Leu Arg
            260                 265                 270
Ile Cys Thr Arg Tyr Thr Pro Glu Gln Asp Thr Met Thr Phe Ser Asp
        275                 280                 285
Gly Leu Thr Leu Asn Arg Thr Gln Met His Asn Ala Gly Phe Gly Pro
    290                 295                 300
Leu Thr Asp Leu Val Phe Ala Phe Ala Asn Gln Leu Leu Pro Leu Glu
305                 310                 315                 320
Met Asp Asp Ala Glu Thr Gly Leu Leu Ser Ala Ile Cys Leu Ile Cys
                325                 330                 335
Gly Asp Arg Gln Asp Leu Glu Gln Pro Asp Arg Val Asp Met Leu Gln
            340                 345                 350
Glu Pro Leu Leu Glu Ala Leu Lys Val Tyr Val Arg Lys Arg Arg Pro
        355                 360                 365
Ser Arg Pro His Met Phe Pro Lys Met Leu Met Lys Ile Thr Asp Leu
    370                 375                 380
Arg Ser Ile Ser Ala Lys Gly Ala Glu Arg Val Ile Thr Leu Lys Met
385                 390                 395                 400
Glu Ile Pro Gly Ser Met Pro Pro Leu Ile Gln Glu Met Leu Glu Asn
                405                 410                 415
Ser Glu Gly Leu Asp Thr Leu Ser Gly Gln Pro Gly Gly Gly Gly Arg
            420                 425                 430
Asp Gly Gly Gly Leu Ala Pro Pro Pro Gly Ser Cys Ser Pro Ser Leu
        435                 440                 445
Ser Pro Ser Ser Asn Arg Ser Ser Pro Ala Thr His Ser Pro
    450                 455                 460
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<210> 2
<211> 448
<212> PRT
<213> Homo sapiens

<400> 2

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Met Phe Asp Cys Met Asp Val Leu Ser Val Ser Pro Gly Gln Ile Leu
 1               5                  10                  15
Asp Phe Tyr Thr Ala Ser Pro Ser Ser Cys Met Leu Gln Glu Lys Ala
            20                  25                  30
Leu Lys Ala Cys Phe Ser Gly Leu Thr Gln Thr Glu Trp Gln His Arg
        35                  40                  45
His Thr Ala Gln Ser Ile Glu Thr Gln Ser Thr Ser Ser Glu Glu Leu
    50                  55                  60
Val Pro Ser Pro Pro Ser Pro Leu Pro Pro Pro Arg Val Tyr Lys Pro
65                  70                  75                  80
Cys Phe Val Cys Gln Asp Lys Ser Ser Gly Tyr His Tyr Gly Val Ser
                85                  90                  95
Ala Cys Glu Gly Cys Lys Gly Phe Phe Arg Arg Ser Ile Gln Lys Asn
            100                 105                 110
Met Ile Tyr Thr Cys His Arg Asp Lys Asn Cys Val Ile Asn Lys Val
        115                 120                 125
Thr Arg Asn Arg Cys Gln Tyr Cys Arg Leu Gln Lys Cys Phe Glu Val
    130                 135                 140
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Gly Met Ser Lys Glu Ser Val Arg Asn Asp Arg Asn Lys Lys Lys Lys
145                 150                 155                 160
Glu Thr Ser Lys Gln Glu Cys Thr Glu Ser Tyr Glu Met Thr Ala Glu
                165                 170                 175
Leu Asp Asp Leu Thr Glu Lys Ile Arg Lys Ala His Gln Glu Thr Phe
            180                 185                 190
Pro Ser Leu Cys Gln Leu Ala Lys Tyr Thr Thr Asn Ser Ser Ala Asp
        195                 200                 205
His Arg Val Arg Leu Asp Leu Gly Leu Trp Asp Lys Phe Ser Glu Leu
    210                 215                 220
Ala Thr Lys Cys Ile Ile Lys Ile Val Glu Phe Ala Lys Arg Leu Pro
225                 230                 235                 240
Gly Phe Thr Gly Leu Thr Ile Ala Asp Gln Ile Thr Leu Leu Lys Ala
                245                 250                 255
Ala Cys Leu Asp Ile Leu Ile Leu Arg Ile Cys Thr Arg Tyr Thr Pro
            260                 265                 270
Glu Gln Asp Thr Met Thr Phe Ser Asp Gly Leu Thr Leu Asn Arg Thr
        275                 280                 285
Gln Met His Asn Ala Gly Phe Gly Pro Leu Thr Asp Leu Val Phe Thr
    290                 295                 300
Phe Ala Asn Gln Leu Leu Pro Leu Glu Met Asp Asp Thr Glu Thr Gly
305                 310                 315                 320
Leu Leu Ser Ala Ile Cys Leu Ile Cys Gly Asp Arg Gln Asp Leu Glu
                325                 330                 335
Glu Pro Thr Lys Val Asp Lys Leu Gln Glu Pro Leu Leu Glu Ala Leu
            340                 345                 350
Lys Ile Tyr Ile Arg Lys Arg Arg Pro Ser Lys Pro His Met Phe Pro
        355                 360                 365
Lys Ile Leu Met Lys Ile Thr Asp Leu Arg Ser Ile Ser Ala Lys Gly
    370                 375                 380
Ala Glu Arg Val Ile Thr Leu Lys Met Glu Ile Pro Gly Ser Met Pro
385                 390                 395                 400
Pro Leu Ile Gln Glu Met Met Glu Asn Ser Glu Gly His Glu Pro Leu
                405                 410                 415
Thr Pro Ser Ser Ser Gly Asn Thr Ala Glu His Ser Pro Ser Ile Ser
            420                 425                 430
Pro Ser Ser Val Glu Asn Ser Gly Val Ser Gln Ser Pro Leu Val Gln
        435                 440                 445
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<210> 3
<211> 454
<212> PRT
<213> Homo sapiens

<400> 3

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Met Ala Thr Asn Lys Glu Arg Leu Phe Ala Ala Gly Ala Leu Gly Pro
 1               5                  10                  15
Gly Ser Gly Tyr Pro Gly Ala Gly Phe Pro Phe Ala Phe Pro Gly Ala
            20                  25                  30
Leu Arg Gly Ser Pro Pro Phe Glu Met Leu Ser Pro Ser Phe Arg Gly
        35                  40                  45
Leu Gly Gln Pro Asp Leu Pro Lys Glu Met Ala Ser Leu Ser Val Glu
```

```
    50                  55                  60
Thr Gln Ser Thr Ser Ser Glu Glu Met Val Pro Ser Ser Pro Ser Pro
65                  70                  75                  80
Pro Pro Pro Pro Arg Val Tyr Lys Pro Cys Phe Val Cys Asn Asp Lys
                85                  90                  95
Ser Ser Gly Tyr His Tyr Gly Val Ser Ser Cys Glu Gly Cys Lys Gly
            100                 105                 110
Phe Phe Arg Arg Ser Ile Gln Lys Asn Met Val Tyr Thr Cys His Arg
        115                 120                 125
Asp Lys Asn Cys Ile Ile Asn Lys Val Thr Arg Asn Arg Cys Gln Tyr
    130                 135                 140
Cys Arg Leu Gln Lys Cys Phe Glu Val Gly Met Ser Lys Glu Ala Val
145                 150                 155                 160
Arg Asn Asp Arg Asn Lys Lys Lys Lys Glu Val Lys Glu Glu Gly Ser
                165                 170                 175
Pro Asp Ser Tyr Glu Leu Ser Pro Gln Leu Glu Glu Leu Ile Thr Lys
            180                 185                 190
Val Ser Lys Ala His Gln Glu Thr Phe Pro Ser Leu Cys Gln Leu Gly
        195                 200                 205
Lys Tyr Thr Thr Asn Ser Ser Ala Asp His Arg Val Gln Leu Asp Leu
    210                 215                 220
Gly Leu Trp Asp Lys Phe Ser Glu Leu Ala Thr Lys Cys Ile Ile Lys
225                 230                 235                 240
Ile Val Glu Phe Ala Lys Arg Leu Pro Gly Phe Thr Gly Leu Ser Ile
                245                 250                 255
Ala Asp Gln Ile Thr Leu Leu Lys Ala Ala Cys Leu Asp Ile Leu Met
            260                 265                 270
Leu Arg Ile Cys Thr Arg Tyr Thr Pro Glu Gln Asp Thr Met Thr Phe
        275                 280                 285
Ser Asp Gly Leu Thr Leu Asn Arg Thr Gln Met His Asn Ala Gly Phe
    290                 295                 300
Gly Pro Leu Thr Asp Leu Val Phe Ala Phe Ala Gly Gln Leu Leu Pro
305                 310                 315                 320
Leu Glu Met Asp Asp Thr Glu Thr Gly Leu Leu Ser Ala Ile Cys Leu
                325                 330                 335
Ile Cys Gly Asp Arg Met Asp Leu Glu Glu Pro Glu Lys Val Asp Lys
            340                 345                 350
Leu Gln Glu Pro Leu Leu Glu Ala Leu Arg Leu Tyr Ala Arg Arg Arg
        355                 360                 365
Arg Pro Ser Gln Pro Tyr Met Phe Pro Arg Met Leu Met Lys Ile Thr
    370                 375                 380
Asp Leu Arg Gly Ile Ser Thr Lys Gly Ala Glu Arg Ala Ile Thr Leu
385                 390                 395                 400
Lys Met Glu Ile Pro Gly Pro Met Pro Pro Leu Ile Arg Glu Met Leu
                405                 410                 415
Glu Asn Pro Glu Met Phe Glu Asp Asp Ser Ser Gln Pro Gly Pro His
            420                 425                 430
Pro Asn Ala Ser Ser Glu Asp Glu Val Pro Gly Gly Gln Gly Lys Gly
        435                 440                 445
Gly Leu Lys Ser Pro Ala
    450
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<210> 4
<211> 9
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<220>
<223> synthetic peptide

<221> VARIANT
<222> (1)...(9)
<223> Xaa = Any Amino Acid

<221> VARIANT
<222> (1)...(9)
<223> Xaa = Any Amino Acid

<400> 4
Leu Xaa Xaa Ile Ile Xaa Xaa Xaa Leu
1 5

<210> 5
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 5
Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 6
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 6
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 7
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic peptide

<400> 7
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 8
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 8
Asp Thr Tyr Arg Tyr Ile
1 5

<210> 9
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic peptide

<400> 9
His His His His His His
1 5

<210> 10
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic nucleotide

<221> misc_feature
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<223> n = A,T,C or G

<400> 10
ggttcannnn nagttca 17

<210> 11
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic nucleotide

<221> misc_feature
<222> (1)...(14)
<223> n = A,T,C or G

<400> 11
aggtcannag gtca 14

<210> 12
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic nucleotide

<221> misc_feature
<222> (1)...(35)
<223> n = A,T,C or G

<400> 12
aggtgannna ggttannnnn nnnnnnnnng ggtca 35

<210> 13
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic nucleotide

<221> misc_feature
<222> (1)...(13)
<223> n = A,T,C or G

<400> 13
agggcanagg tca 13

<210> 14
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic nucleotide

<221> misc_feature
<222> (1)...(13)
<223> n = A,T,C or G

<400> 14

cggcaanagg tca 13

<210> 15
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic nucleotide

<221> misc_feature
<222> (1)...(15)
<223> n = A,T,C or G

<400> 15
gggtcannng gttca 15

<210> 16
<211> 15
<212> DNA
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<223> n = A,T,C or G

<400> 16
agaacannnt gttct 15

<210> 17
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic nucleotide

<400> 17
agctttcagg tcaccaggag gtcagaa 27

<210> 18
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<212> PRT
<213> Homo sapiens

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20 25 30
Asp Cys Leu Ile Asp Lys Arg Gln Arg Asn Arg Cys Gln Tyr Cys Arg
35 40 45
Tyr Gln Lys Cys Leu Ala Met Gly Met
50 55

<210> 19
<211> 57
<212> PRT
<213> T. cystophoro

<400> 19
Val Lys His Tyr Gly Val Phe Ala Cys Glu Gln Cys Lys Gly Phe Phe
1 5 10 15
Lys Arg Ser Val Arg Asn Asn Arg Lys Tyr Ser Cys Leu Gly Lys Arg
20 25 30
His Cys Asp Thr Asp Lys Lys Ser Arg Asn Arg Cys Gln Tyr Cys Arg
35 40 45
Phe Gln Lys Cys Val Gln Val Gly Met
50 55

<210> 20
<211> 83
<212> PRT
<213> Homo sapiens

<400> 20
Gly Tyr His Tyr Arg Cys Ile Thr Cys Glu Gln Cys Lys Gln Phe Phe
1 5 10 15
Arg Arg Thr Thr Gln Lys Asn Leu His Pro Ser Tyr Ser Cys Lys Tyr
20 25 30
Glu Gly Lys Cys Val Ile Asp Lys Val Thr Arg Asn Gln Cys Gln Glu
35 40 45
Cys Arg Phe Lys Lys Cys Ile Tyr Val Gly Met Ala Thr Asp Leu Val
50 55 60
Leu Asp Gln Ser Lys Arg Leu Ala Lys Arg Lys Leu Ile Glu Glu Asn
65 70 75 80
Arg Glu Lys

<210> 21
<211> 61
<212> PRT
<213> Homo sapiens

<400> 21

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Gly Tyr His Tyr Gly Val Trp Ser Cys Glu Gln Cys Lys Ala Phe Phe
 1               5                  10                  15
Lys Arg Ser Ile Gln Gly His Asn Asp Tyr Met Cys Pro Ala Thr Asn
            20                  25                  30
Gln Cys Thr Ile Asp Lys Asn Arg Arg Lys Ser Cys Gln Ala Cys Arg
        35                  40                  45
Leu Arg Lys Cys Tyr Glu Val Gly Met Met Lys Gly Gly
    50                  55                  60
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<210> 22
<211> 57
<212> PRT
<213> Rattus sp.

<400> 22

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Gly Cys His Tyr Gly Val Leu Thr Cys Gly Ser Cys Lys Val Phe Phe
 1               5                  10                  15
Lys Arg Ala Val Glu Gly Gln His Asn Tyr Leu Cys Ala Gly Arg Asn
            20                  25                  30
Asp Cys Ile Ile Asp Lys Ile Arg Arg Lys Asn Cys Pro Ala Cys Arg
        35                  40                  45
Tyr Arg Lys Cys Leu Gln Ala Gly Met
    50                  55
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<210> 23
<211> 20
<212> PRT
<213> Homo sapiens

<400> 23

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Trp Ala Lys Arg Ile Pro His Phe Ser Glu Leu Pro Leu Asp Asp Gln
 1               5                  10                  15
Val Ile Leu Leu
            20
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<210> 24
<211> 20
<212> PRT
<213> T. cystophora

<400> 24

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Trp Ala Lys Arg Leu Pro His Phe Arg Asp Leu Ser Ile Ala Asp Gln
 1               5                  10                  15
Val Val Leu Leu
            20
```

<210> 25
<211> 20
<212> PRT

<213> Homo sapiens

<400> 25
Phe Ala Lys Lys Leu Pro Met Phe Ser Glu Leu Pro Cys Glu Asp Gln
 1   5   10   15
Ile Ile Leu Leu
            20

<210> 26
<211> 20
<212> PRT
<213> Homo sapiens

<400> 26
Phe Ala Lys Arg Leu Pro Gly Phe Thr Gly Leu Ser Ile Ala Asp Gln
 1   5   10   15
Ile Thr Leu Leu
            20

<210> 27
<211> 20
<212> PRT
<213> Homo sapiens

<400> 27
Tyr Ala Lys Ser Ile Pro Gly Phe Val Asn Leu Asp Leu Asn Asp Gln
 1   5   10   15
Val Thr Leu Leu
            20

<210> 28
<211> 20
<212> PRT
<213> Homo sapiens

<400> 28
Phe Ala Lys Gln Leu Pro Gly Phe Leu Gln Leu Ser Arg Glu Asp Gln
 1   5   10   15
Ile Ala Leu Leu
            20

<210> 29
<211> 20
<212> PRT
<213> Homo sapiens

<400> 29
Phe Ala Lys Met Ile Pro Gly Phe Arg Asp Leu Thr Ser Glu Asp Gln
 1   5   10   15

Ile Val Leu Leu
20

<210> 30
<211> 20
<212> PRT
<213> Homo sapiens

<400> 30
Trp Ala Lys Arg Val Pro Gly Phe Val Asp Leu Thr Leu His Asp Gln
1 5 10 15
Val His Leu Leu
20

<210> 31
<211> 20
<212> PRT
<213> Homo sapiens

<400> 31
Trp Ala Lys Ala Ile Pro Gly Phe Arg Asn Leu His Leu Asp Asp Gln
1 5 10 15
Met Thr Leu Leu
20

<210> 32
<211> 20
<212> PRT
<213> Homo sapiens

<400> 32
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1 5 10 15
Ile Thr Leu Ile
20

<210> 33
<211> 9
<212> PRT
<213> Homo sapiens

<400> 33
Leu Leu Leu Arg Leu Pro Ala Leu Arg
1 5

<210> 34
<211> 9
<212> PRT

<213> T. cystophora

<400> 34
Val Ile Leu Arg Ile Pro Ala Leu Arg
1 5

<210> 35
<211> 9
<212> PRT
<213> Homo sapiens

<400> 35
Leu Leu Met Lys Val Thr Asp Leu Arg
1 5

<210> 36
<211> 9
<212> PRT
<213> Homo sapiens

<400> 36
Met Leu Met Lys Ile Thr Asp Leu Arg
1 5

<210> 37
<211> 9
<212> PRT
<213> Homo sapiens

<400> 37
Leu Leu Gln Lys Met Thr Asp Leu Arg
1 5

<210> 38
<211> 9
<212> PRT
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<400> 38
Met Leu Met Lys Leu Val Ser Leu Arg
1 5

<210> 39
<211> 9
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<400> 39

Met Ile Gln Lys Leu Ala Asp Leu Arg
1 5

<210> 40
<211> 9
<212> PRT
<213> Homo sapiens

<400> 40
Leu Leu Leu Ile Leu Ser His Ile Arg
1 5

<210> 41
<211> 9
<212> PRT
<213> Homo sapiens

<400> 41
Leu Thr Lys Leu Leu Asp Ser Met His
1 5

<210> 42
<211> 9
<212> PRT
<213> Homo sapiens

<400> 42
Leu Thr Lys Leu Leu Asp Asn Leu His
1 5

<210> 43
<211> 6
<212> PRT
<213> Homo sapiens

<400> 43
Phe Leu Met Glu Met Leu
1 5

<210> 44
<211> 6
<212> PRT
<213> T. cystophora

<400> 44
Phe Leu Leu Asp Met Leu
1 5

<210> 45
<211> 6
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<400> 45
Leu Phe Leu Glu Val Phe
1 5

<210> 46
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<212> PRT
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<400> 46
Leu Ile Arg Glu Met Leu
1 5

<210> 47
<211> 6
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<400> 47
Leu Leu Gln Glu Ile Tyr
1 5

<210> 48
<211> 6
<212> PRT
<213> Homo sapiens

<400> 48
Leu Leu Ser Glu Ile Trp
1 5

<210> 49
<211> 6
<212> PRT
<213> Homo sapiens

<400> 49
Leu Val Leu Glu Val Phe
1 5

<210> 50
<211> 6

<212> PRT
<213> Homo sapiens

<400> 50
Leu Leu Leu Glu Met Leu
1 5

<210> 51
<211> 6
<212> PRT
<213> Homo sapiens

<400> 51
Met Leu Ala Glu Ile Ile
1 5

<210> 52
<211> 6
<212> PRT
<213> Homo sapiens

<400> 52
Met Val Ser Glu Val Ile
1 5